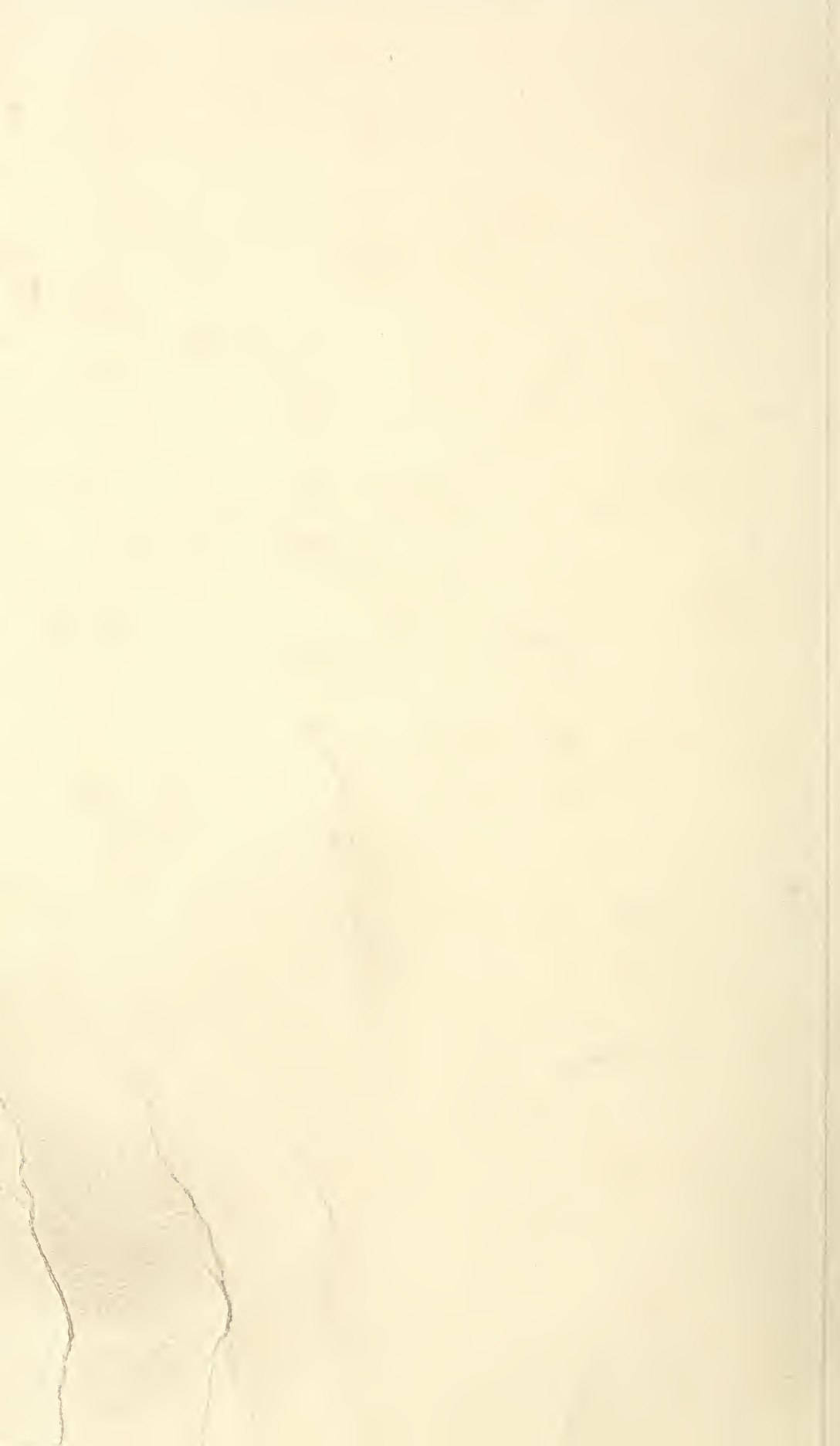


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ARS SCIENCE HALL OF FAME

SEPTEMBER 18
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Agricultural Research Service
U.S. Department of Agriculture

Agricultural Research Service SCIENCE HALL OF FAME

The ARS Science Hall of Fame was inaugurated in 1986. We determined that each succeeding year, one or more present or former scientists with the Agricultural Research Service could be selected, subject to the following criteria:

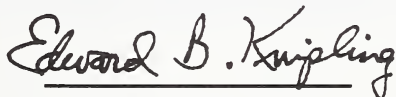
The selectee made a major impact on agricultural research, either by the solution of a significant agricultural problem through research or by providing outstanding leadership that significantly advanced agricultural research.

The selectee is a person whose accomplishments are still recognized by the agricultural research community.

The selectee's character and record of achievement are worthy of emulation by younger agricultural scientists.

The selectee's achievements must be or have been nationally and/or internationally recognized by peers in the scientific community.

Today we honor several outstanding scientists by inducting them into the Science Hall of Fame. A plaque citing the achievements of each will be on permanent display in the ARS National Visitor Center at the Beltsville Agricultural Research Center.

A handwritten signature in black ink that reads "Edward B. Knipling". The signature is written in a cursive style with a horizontal line underneath the name.

Edward B. Knipling
Acting Administrator



SCIENCE HALL OF FAME

George Inglett

Research Chemist

National Center for Agricultural Utilization Research

Peoria, Illinois

In recognition of the development of novel, patented food ingredients including Oatrim and Nutrim, which have provided sustained benefits to the American diet.



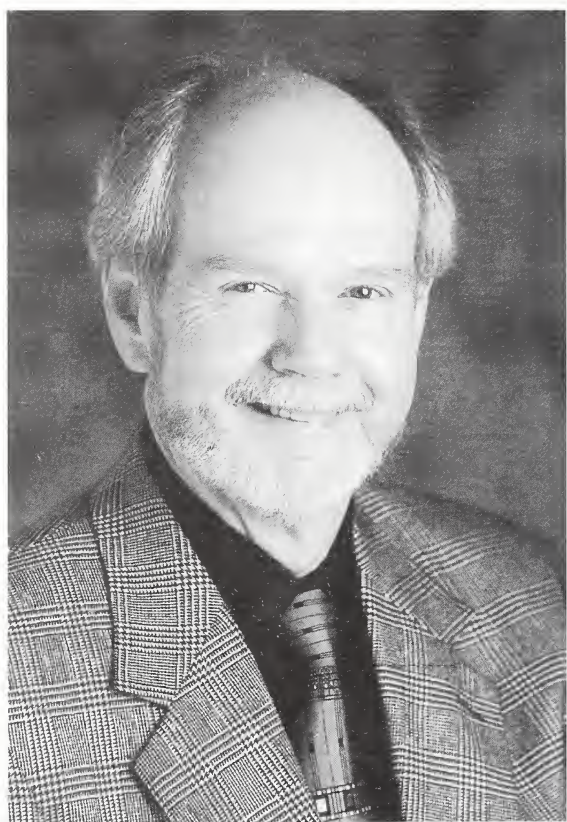
George Inglett is one of foremost international experts in food science and technology. His creative research and technology transfer of innovative foods have improved the health of Americans and the world.

Oatrim, Z-Trim, Nutrim, Soytrim—Inglett developed these derivatives of oats, barley, soy, and agricultural by-products as fat replacements that provide a fraction of the calories to the consumer while maintaining the desirable sensory factors that make eating pleasurable and increasing the food's nutritional value. These products also aid in lowering cholesterol, are beneficial to diabetics, and act as antioxidants.

Oatrim, the earliest of these products, has generated over \$1 billion in licensed sales. The most recent, Soytrim, promises new export markets for American crops.

Besides developing these products, Inglett has spent much effort on making them generally available by facilitating rapid transfer of the technologies to private industry and developing public awareness of these fat substitutes.

Dr. Inglett's honors include the Distinguished Achievement Award, Distinguished Service Award, Agricultural and Food Chemistry Fellow Award, and 50th Anniversary Award from the American Chemical Society; Chicago Section Chairman's Award, Harold Macy Food Science and Technology Award, Industrial Scientist Award, and Babcock-Hart Award from the Institute of Food Technologists; Scientist-of-the-Year Award from the National Center for Agricultural Utilization Research; USDA's Superior Team Award and Distinguished Service Award; and Outstanding Scientist of the Year, two Technology Transfer Awards, and others from ARS.



SCIENCE HALL OF FAME

K. Darwin Murrell

Deputy Administrator (retired)
Agricultural Research Service
Beltsville, Maryland

For landmark research on parasites of veterinary and medical importance, especially trichinellosis of swine, and innovative development and leadership of laboratory and agency-level programs that established and advanced objectives of the Agricultural Research Service.



arwin Murrell has served America and the world with significant advances in epidemiology and immunology. He led USDA's comprehensive research program on trichinellosis, which combined the efforts of many ARS laboratories and other institutions. The program's significant advances in the epidemiology, immunity, diagnosis, and systematics of *Trichinella* led to a significant reduction of the threat posed by this potentially lethal disease in the United States.

Murrell's pioneering research on the immunology of schistosomiasis yielded important information about this internationally devastating disease of animals and humans. Other research provided insight into the previously unrecognized public health threat from the swine intestinal parasite *Ascaris suum* in visceral larva migrans. Murrell was instrumental in development of a Pan American Health Organization program for control of foodborne parasites in Latin America.

A distinguished career in administration in the Agricultural Research Service culminated in Murrell's service as Deputy Administrator.

Murrell has received many honors in the United States and abroad, including ARS' Outstanding Scientist of the Year, Egypt's Medal of Nefertiti, the Distinguished Veterinary Parasitologist Award from the American Association of Veterinary Parasitologists, a Presidential Rank Distinguished Executive Award, and a Fulbright Fellowship. He has served as President of the American Society of Parasitologists, American Association of Veterinary Parasitologists, and the International Commission on Trichinellosis.

And in 2000, a newly discovered species of *Trichinella* was named after Dr. Murrell.



SCIENCE HALL OF FAME

Stuart O. Nelson

Agricultural Engineer
Quality Assessment Research Unit
Athens, Georgia

For pioneering research on the dielectric properties of agricultural materials, applications of radio-frequency and microwave energy, and electrical measurements for moisture sensing in cereal grains.



Stuart O. Nelson is the world authority on dielectric properties of agricultural products and their measurement. His research on the dielectric behavior of granular and pulverized materials led to the first reliable technique for measuring moisture in grain. In the United States, grain moisture content is measured almost exclusively by his methods.

Nelson's research has expanded into other agricultural areas: controlling stored-product insects with radio-frequency and microwave power, treating seed with electric fields to improve germination, and conditioning products to reduce pathogens.

Other Federal agencies, including the National Bureau of Standards and the Department of Energy, have consulted Nelson. He helped the Bureau of Mines and OSHA apply his findings to mine safety.

Nelson made major contributions to ASAE Standards and has received numerous invitations to write book chapters and other reviews. He has been elected Chair of several committees of the American Society of Agricultural Engineers (ASAE).

His honors include the Decade Award from the International Microwave Power Institute (IMPI), ARS Engineer of the Year and Founders Gold Medal from the National Society of Professional Engineers, and the McCormick-Case Gold Medal from ASAE; the USDA Superior Service Award; induction into the University of Nebraska Biological Systems Engineering Hall of Fame and election to the National Academy of Engineering and The Electromagnetics Academy; as well as selection as a Fellow of ASAE, IMPI, and the Institute of Electrical and Electronics Engineers (IEEE).

ARS SCIENCE HALL OF FAME

1986

Edward F. Knipling

For pioneering research and leadership in development of the sterile insect technique, which led to the eradication of the screwworm, and of other technologies to suppress and manage insect pests.

1987

Howard L. Bachrach

For pioneering research on the molecular biology of foot-and-mouth disease that led to development of the world's first effective subunit vaccine for any disease of animals or humans through the use of gene splicing.

Myron K. Brakke

For consistent, career-long valuable contributions to the science of virology, particularly plant virology.

Glenn W. Burton

For outstanding achievements in forage and turf science, which have had extraordinary effects on the forage-based cattle industry, the turf industry, and agriculture worldwide.

Wilson A. Reeves

For outstanding research and leadership in the field of textile chemical finishing that have significantly benefited agriculture and consumers.

Earnest R. Sears

For pioneering work in wheat genetics and for discoveries on chromosomal mechanisms that established standards in animal, plant, and human genetics.

Orville A. Vogel

For development of the first useful semidwarf wheats and of innovative production systems that made the Pacific Northwest a major source of soft white wheat, inspired similar research efforts throughout the world, and sparked the Green Revolution.

Cecil H. Wadleigh

For elucidating the mechanisms through which crops respond to salinity and water stress and for inspired planning and leadership that enabled and motivated those who worked with him to expand and make use of knowledge of soils, water, and air and their interactions with plants.

1988

Francis E. Clark

For outstanding research leading to greater understanding of soil, plant, and microbial interactions and of nutrient cycling in terrestrial ecosystems.

Edgar E. Hartwig

For research in soybean breeding and genetics that has been a major factor in soybeans becoming the second most valuable U.S. crop and particularly for developing cultivars that thrive in the South.

Ralph E. Hodgson

For significant contributions to the knowledge of ruminant nutrition and for visionary leadership, both domestic and international, in the animal industries.

Hamish N. Munro

For career-long contributions to the science of nutrition, particularly on the relationship of dietary protein and iron to the health of the elderly, and for promotion of studies on aging.

José Vicente-Chandler

For research leading to new and greatly improved production systems for beef, milk, coffee, plantains, and rice for Puerto Rico and Caribbean countries.

1989

Douglas R. Dewey

For world leadership in genetics and taxonomy of the Triticeae tribe of grasses and for development of the cytogenetic basis for creating new grass hybrids.

Theodor O. Diener

For conceptualizing and discovering viroids, for leading research on viroid detection and control, and for inspiring new approaches in the search for causes of several serious diseases affecting plants, livestock, and humans.

Karl H. Norris

For developing principles and instruments using the electromagnetic wave spectrum to make rapid nondestructive measurements for evaluating quality of agricultural products.

John F. Sullivan

For engineering contributions to the food-processing and preservation industries, including development of instant potato flakes and of batch and continuous-explosion puffing.

1990

Theodore C. Byerly

For extraordinary contributions as a scientist, research leader, and administrator to the success of agricultural research programs and advances in U.S. and world agriculture.

Gordon Dickerson

For research contributions widely used by breeders to increase production efficiency of cattle, sheep, swine, and poultry.

Robert W. Holley

For isolation and characterization, including the first nucleotide sequence, of transfer ribonucleic acid (tRNA).

Virgil A. Johnson

For outstanding contributions to development of superior bread wheat cultivars and of improved wheat germplasm and for vigorous promotion of national and international cooperation among wheat breeders.

George F. Sprague

For outstanding contributions to effective methods of hybrid corn breeding and germplasm improvement.

1991

John H. Weinberger

For outstanding lifelong contributions in development of fruit varieties and fruit-breeding technology.

Walter H. Wischmeier

For developing the Universal Soil Loss Equation, which has been widely used for three decades worldwide in conservation and management of our natural resources.

1992

Raymond C. Bushland

For pioneering research leading to screwworm eradication by the sterile insect technique and for research leading to control of typhus vectors.

Lyman B. Crittenden

For significant contributions to retroviral genetics, transgenic animal development, and genome mapping in poultry.

Arnel R. Hallauer

For increasing understanding and use of quantitative genetics in plant breeding, which has led to development of many superior corn hybrids worldwide.

1993

John R. Gorham

For scientific leadership and studies that have resulted in solutions of disease control problems and have advanced the basic knowledge of viral and genetic diseases in humans and animals.

Sterling B. Hendricks

For significant contributions as a chemist, physicist, mathematician, plant physiologist, geologist, and mineralogist.

Clair E. Terrill

For scientific contributions and worldwide leadership in sheep production research

1994

Charles N. Bollich

In recognition of superlative accomplishments in rice breeding and genetics and their consequent benefits to American agriculture.

Chester G. McWhorter

For outstanding contributions to American agriculture through basic and applied research that has resulted in improved weed-management technology, increased yields, and reduced cost of production.

Malcolm J. Thompson

For career research contributions in the field of insect and plant steroid biochemistry.

1995

Harry Alfred Borthwick

In recognition of contributions in elucidating the importance of photoperiodic mechanisms controlling flowering in plants.

William M. Doane

For initiating, leading, and conducting research that created new and useful products and led to the establishment of new industries based on agricultural raw materials.

Walter Mertz, M.D.

For contributions and leadership in elucidating the importance to health of several trace elements and promoting research on dietary risk factors for chronic disorders.

1996

Fred W. Blaisdell

For pioneering research and development of improved structures for soil and water conservation.

Herbert J. Dutton

For pioneering research leading to the establishment of soybean oil as the predominant edible vegetable oil in the world.

Charles Jackson Hearn

For developing improved orange, grapefruit, and tangerine varieties used extensively by U.S. citrus producers to replace trees killed by the 1980 freezes and to expand the citrus acreage.

1997

Morton Beroza

For major contributions to the development of environmentally compatible insect control strategies through discovery of lures, attractants, repellents, and pheromones.

R. James Cook

For extraordinary research on sustainable approaches to improve wheat health and for leadership in the transfer of information and technology resulting in solutions to agricultural problems.

William L. Ogren

For outstanding leadership and fundamental contributions to photosynthetic carbon metabolism leading to the discovery of new opportunities to improve the efficiency and productivity of crop plants.

1998

Thomas J. Henneberry

For conducting basic and applied individual and team research that has had sustained global impact on development and implementation of integrated pest management systems.

James H. Tumlinson III

For research that led to eradication of the boll weevil from the southeastern United States and the discovery of the chemical basis of plant-insect-parasite interaction.

1999

Allene R. Jeanes

For microbiological, chemical, and engineering research that created urgently needed, life-saving industrial polymers made from agricultural commodities.

Charles W. Stuber

For pioneering the use of molecular markers in identifying, mapping, and manipulating quantitative trait genes.

Richard L. Witter

For outstanding research contributions and leadership in the field of avian tumor viruses.

2000

Virginia H. Holsinger

For research leading to increased use of milk products and for humanitarian efforts in developing nutritious formulations for international food donation programs.

Marvin E. Jensen

For advancements in irrigation scheduling using computer models to estimate soil-water balance and for advancements in evapotranspiration theory.

Harley W. Moon

For contributions to a fundamental understanding of intestinal diseases in livestock and for development of effective control programs for these diseases.

2001

Lawrence A. Johnson

For pioneering research in developing the first useful technology for gender preselection of animal and human offspring and for outstanding contributions to semen preservation and artificial insemination in swine.

William E. Larson

In recognition of a pioneer who respected soil as a natural resource and devoted a research career toward improving its quality.

William L. Mengeling

For outstanding research contributions and leadership in the field of viral diseases of swine.





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